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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/706,979	11/14/2003	Robert L. Smith	12361/223	7498
757	7590	07/28/2006	EXAMINER	
BRINKS HOFER GILSON & LIONE P.O. BOX 10395 CHICAGO, IL 60610			PRICE, CARL D	
			ART UNIT	PAPER NUMBER
			3749	
DATE MAILED: 07/28/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/706,979

Applicant(s)

SMITH ET AL.

Examiner

CARL D. PRICE

Art Unit

3749

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 13 April 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>03/14/05, 05/10/05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

Applicant's arguments with respect to claims 1-11 have been considered but are moot in view of the new ground(s) of rejection.

Applicant has amended the claims to be of a scope not previously considered. Consistent with applicant's argument that the prior art relied on in the previous office action fail to show, disclose and/or teach certain aspects of applicant's invention now recited in the claims filed on 04/13/2006, applicant has amended the claims to include for example the following:

“a heat insulating liner disposed within said housing and spaced away from the walls thereof defining a cooking cavity of said oven, said liner having rear and side walls and a top wall and a bottom wall, said rear wall having a port therethrough, wherein the liner is configured so that products of combustion enter the cooking chamber through said port only after traversing an outside of at least two additional walls of said liner.”

The following Examiner's action now addresses the scope of the claimed invention recited in the claims as amended.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Art Unit: 3749

In claim 1, the recitation “wherein the liner is configured so that products of combustion enter the cooking chamber through said port only after traversing an outside of at least two additional walls of said liner.” is vague since it is unclear with what relationship the “at least two additional walls” have with the already recited structure. For example, it is not clear if applicant is attempting to claim - - wherein the liner is configured so that products of combustion and heated air enter the cooking chamber through said port only after traversing at least an outer surface of said rear wall after traversing an outside surface of at least two additional walls of said liner selected from one of said side walls, top wall or bottom wall --?

Regarding the recitation “products of combustion”, it is understood that both products of combustion originating from the burner as well as air drawn into and heated in the combustion area are delivered to the cooking cavity through the port.

Also, in claim 1, line 16, it is unclear what location or orientation would necessarily constitute “in front of”, which of the plate or opening are coaxial with the fan, and how or by what means the mixture is necessarily “expelled” into the cooking cavity. Is applicant intending to recite for example:

- - a baffle and guard assembly including a plate having a circular opening is disposed within the cooking cavity wherein the circular opening is arranged coaxial with said fan, a pair of diverter plates extend from a rear surface of said plate toward said liner back wall, said diverter plates are arranged to cover and extend generally in the direction of only a portion of a circumference of said fan whereby products of combustion passing through the port and heated air from within the oven cavity passing through the opening will be mixed and expelled by the fan into the oven cavity through an area defined about the periphery of the and an interior wall surface are of the cavity- - .

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 3749

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims: Rejected under 35 U.S.C. 103(a)

Claims 1-7, 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over US005601070 (Hotard et al) in view of US005497760A (Alden et al) or US004928663 (Nevin) and in view of US004395233 (Smith et al) and US004813398 (Savage).

US005601070 (Hotard et al) shows and discloses a convection oven including:

- an insulated housing (12);
- a liner formed as oven cavity or box having rear (26), side walls (22, 24) and a top (20) and a bottom wall (18), the rear wall having a port (not referenced - see column 4, lines 48-50; *"The combustion products enter the blower compartment 64 via an oversized opening surrounding the shaft of the blower fan motor 52."*)
- a plurality of gas burners (40; see column 3, lines 26-31 – *"One or more heating elements heat the air in the inlet air passageway 30 before the air is introduced into the oven chamber 14. Any conventional heating element may be used."*) disposed in a pathway (30, 34) defined between the housing and the liner for expelling hot products of combustion into the space between the liner and housing (see column 4, lines 46-48; *"Combustion products are also drawn by the blower fan 50 from the flue chamber 34 into the blower compartment 64"*);

Art Unit: 3749

- a squirrel cage fan (50) mounted within the liner across the port in the back wall;
- baffle and guard assembly including a plate (62) having a circular opening (74) disposed in front of the fan and the opening being coaxially with the fan and a four diverter plates (90), two of which are disposed at about two and eight o'clock around opening in the plate, extending from the plate toward the liner back wall (see column 6, 16-19); *"In yet another embodiment (not shown), the diverter plates 90, 92 may be secured to a rear surface of the baffle plate 62"*) and covering only a portion of the circumference of the fan whereby heated air passing through the port and through the opening will be mixed and expelled by the fan into the cooking cavity;
- the plate opening has a guard (note figure 2 showing plate (82) with three guards (not referenced) extending across port (74));

US005601070 (Hotard et al) shows and discloses the invention substantially as set forth in the claims with possible exception to:

- the fan mounting an internal concave plate on one side adjacent the port in the back wall; and
- the burner(s) being four in number or at least one in-shot burner;
- the port guard being formed as a "mesh";
- the pathway extending around the space between side walls
- the plates being no more than about three inches across; and
- a burner control for selectively changing the maximum heat energy of the combustion from a first to a second value, wherein the first value is 60,000 BTUS and the second value is 80,000 BTUS.

US005497760A (Alden et al) teaches, from applicant's same convection oven field of endeavor, using an oven air circulating fan of the type having an internal concave plate (18) and using four in-shot burners (14) as the heat source.

US004928663 (Nevin) also teaches using an oven air circulating fan of the type having an internal concave plate (figure 7) and using four burners (32) as the heat source and located below the oven cavity bottom wall.

US004395233 (Smith et al) teaches, from applicant's same convection oven field of endeavor, forming a convection oven and liner with a space therebetween between the pathway extending around the space between top, rear and side walls (66) whereby when products of combustion circulate through the pathway heating the liner walls to generate radiant heat in the cavity.

In regard to claims **1-7, 10** and **11**, for the purpose of providing a suitable alternative fan, it would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to substitute, for the **US005601070 (Hotard et al)** fan, a fan of the type having an internal concave plate and for the purpose for providing a convention alternative heat source to substitute four in-shot burners for the burners of **US005601070 (Hotard et al)**, in view of the teaching(s) of **US005497760A (Alden et al)** and/or **US004928663 (Nevin)**. Also, to permit products of combustion to more evenly heat oven cavity liner walls, it would have been obvious to a person having ordinary skill in the art to modify **US005601070 (Hotard et al)** to also include side pathways so that products of combustion and heated air enter the cooking chamber through said port only after traversing at least an outer surface of said rear wall after traversing an outside surface of at least two additional walls of said liner selected from one of said side walls, top wall or bottom wall, in view of the teaching of **US004395233 (Smith et al)**. And, for the purpose of providing an alternative means of mounting the diverter plates such that for example the diverter and guard plates are formed as a single unit for installation purposes, it would have been obvious to a person having ordinary skill in the art to arrange the diverter plates of **US005601070 (Hotard et al)** to extend rearward from the guard plate, in view of the teaching of **US004813398 (Savage)** as well as in view of **US005601070 (Hotard et al)** own teaching that *"In yet another embodiment (not shown), the diverter plates 90, 92 may be secured to a rear surface of the baffle plate 62"*.

In regard to claim 4, Official Notice is taken that it is well known to form blower port guards in the form of a “mesh” or screen. Thus, in view of that which is well known in the convection oven field of endeavor and for the purpose of providing a suitable guard arrangement for the fan port wherein the opening in the plate has a mesh guard (e.g. - **GB002109920**; of record).

In regard to claim 6, since the plate spacing would necessarily depend on numerous design parameters such as characteristics of the material(s) being heated in the oven, the overall size and shape of the oven, etc. to arrange the plates to be no more than about three inches across can be viewed as nothing more than mere matters of choice in design absent the showing of any new or unexpected results produced therefrom over the prior art of record.

Claims: Rejected under 35 U.S.C. 103(a)

Claims **8** and **9** are rejected under 35 U.S.C. 103(a) as being unpatentable over **US005601070 (Hotard et al)** in view **US005497760A (Alden et al)** or **US004928663 (Nevin)** and in view of **US004395233 (Smith et al)** and **US004813398 (Savage)**, as applied to claim 7 above, and further in view of **US003963410 (Baysinger et al)**.

US003963410 (Baysinger et al) teaches, from applicant’s same oven field of endeavor, providing a combustion burner heated oven with a control system having an economical temperature variable resistance means for cyclically operating the main burner in a manner to maintain various selected oven temperatures.

In regard to claim 8, for the purpose of providing varying degrees of heat during oven operation, it would have been obvious to a person having ordinary skill in the art to modify the combustor of **US005601070 (Hotard et al)** to include combustion control capable of changing the maximum heat energy of the combustion from a first to a second value, in view of the teaching of **US003963410 (Baysinger et al)**.

In regard to claim 9, since the amount of heat energy emitted during various combustor settings would necessarily depend on numerous design parameters such as characteristics of the

Art Unit: 3749

material(s) being heated in the oven, the overall size and shape of the oven, etc. to operate the maximum heat energy of the combustion from a first to a second value, wherein the first value is 60,000 BTUS and the second value is 80,000 BTUS, can be viewed as nothing more than mere matters of choice in design absent the showing of any new or unexpected results produced therefrom over the prior art of record.

Conclusion

THIS ACTION IS MADE FINAL

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

USPTO CUSTOMER CONTACT INFORMATION

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CARL D. PRICE whose telephone number is (571) 272-4880. The examiner can normally be reached on Monday through Friday between 6:30am-3:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ehud Gartenberg can be reached on (571) 272-4828. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3749

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


CARL D. PRICE

Primary Examiner

Art Unit 3749

cp